IN THE UNITED STATES DISTRICT COURT FOR THE MIDDLE DISTRICT OF NORTH CAROLINA

HEART IMAGING TECHNOLOGIES, * LLC,

Plaintiff, * Case No. 1:12CV1020

VS.

* Winston-Salem, North Carolina

MERGE HEALTHCARE July 16, 2013

INCORPORATED 10 a.m.

Defendant. *******

> TRANSCRIPT OF PRELIMINARY INJUNCTION HEARING BEFORE THE HONORABLE JAMES A. BEATY, JR., UNITED STATES DISTRICT JUDGE.

APPEARANCES:

For the Plaintiff: JAMES L. LESTER, ESQUIRE

KELLY ROBINSON, ESQUIRE MacCord Mason, PLLC Post Office Box 2947

Greensboro, North Carolina 27402

For the Defendant: TERRENCE J. TRUAX, ESQUIRE

BENJAMIN J. BRADFORD, ESQUIRE

PETER H. HANNA, ESQUIRE Jenner & Block, LLP 353 N. Clark Street

Chicago, Illinois 60654-3456

GARY L. BEAVER, ESQUIRE

Nexsen Pruet, PLLC Post Office Box 3463

Greensboro, North Carolina 27402

Lori Russell, RMR, CRR Court Reporter:

P.O. Box 20593

Winston-Salem, North Carolina 27120

Proceedings recorded by stenotype reporter. Transcript produced by Computer-Aided Transcription.

1 PROCEEDINGS 2 THE COURT: Counsel, if you will, identify 3 yourselves. 4 This matter being called now is Heart Imaging 5 Technologies versus Merge Healthcare Incorporated. 6 If the attorneys for Heart Imaging will identify 7 yourselves for the record. 8 MR. LESTER: Your Honor, Jim Lester with MacCord 9 Mason representing Heart Imaging. 10 MS. ROBINSON: Kelly Robinson with MacCord Mason 11 for Heart Imaging. 12 MR. BEAVER: Your Honor, Gary Beaver. I'm the 13 local counsel for Merge. I've got three attorneys with the 14 Jenner & Block firm. I'll let them each introduce 15 themselves. 16 MR. TRUAX: Good morning, Your Honor. It's Terry 17 Truax from Jenner & Block on behalf of Merge Healthcare, 18 Your Honor. 19 MR. BRADFORD: Good morning. Benjamin Bradford 20 also on behalf of Merge Healthcare from Jenner & Block. 21 MR. HANNA: Good morning, Your Honor. My name is 22 Peter Hanna. I'm also here on behalf of Merge from Jenner & 23 Block. 24 THE COURT: Counsel, as you know, the Court has

given you notice that the matter is today for preliminary

25

injunction based upon the briefing that was earlier filed. I know there have been several attempts to expand this beyond that and the Court has indicated to you that will not be done. What's before the Court was what was a part of your preliminary injunction request as relates to Claim 1 of patent '381.

Even this morning or late yesterday an additional briefing was filed as an attempt to add more before the Court, and it was Defendant's motion to file a supplemental briefing to bring into account all the matters that have been done moving toward a full claim construction, but that matter will not be undertaken by the Court at this time.

I've indicated the limited purpose for this hearing and that's what it will be. So if you'll direct yourself in that regard, I would appreciate it.

I'll start with Heart Imaging to the extent this is your motion for preliminary injunction.

MR. LESTER: Thank you very much, sir.

We will be showing some slides to illustrate the motion. I want to thank you for taking up this motion for preliminary injunction. We recognize it's extraordinary relief that we're seeking, but I think after you've reviewed the facts and the law you will realize that this extraordinary remedy is appropriate in these circumstances.

Heart IT is a small company. It has 17 employees.

It's in Durham -- based in Durham. They only have \$3 million in sales each year. It was founded in 2000 by three doctors and research scientists who were doing heart imaging research. Dr. Judd, one of the primary inventors, is here with me, as are the other two inventors: Dr. Kim and Dr. Chen. Also with you today are Mrs. Judd and Heart Imaging's vice president of sales, Mr. Perez.

This is a small company, but they've had a big impact in the world of medical imaging. They have the distinction of inventing and being the first to get FDA approval in 2005 of a zero-footprint medical imaging viewer. The small company has sparked a revolution in medical imaging with their viewer called WebPAX.

Zero-footprint viewers allow doctors to examine and make diagnoses from anywhere using any device equipped with a standard web browser, from a PC to a notebook computer to a mobile phone. Unlike the prior art, there are no downloads, no plug-ins, no special equipment or software. This means that a user will never get a pop-up message saying you need administrator authority to download this thing or a Java plug-in required.

Achieving zero-footprint capabilities in a medical image viewer that was suitable for diagnosis was very difficult. The inventors first had to overcome the general belief in the field that it was impossible. We've submitted

textbooks and articles to that effect in the briefing papers. But once they asked the question that nobody had asked before, can we make a viewer that (A) runs in a standard browser, (B) converts images without loss of diagnostic data and (C) permits medical diagnosis, they had to figure out how to overcome the limitations of the Internet, which was not designed for transmitting medical images. The end result was a remarkable product.

Just as background, I would like to show you a quick clip of the WebPAX medical imaging viewer in operation, which we can use to help illustrate some of the terms that are not in dispute but are in the claims.

Could I get the screen up?

Okay. We're going to play this clip of the medical imaging viewer. You'll note there are high-quality images on the right side of the screen. In a second, you'll see a heart beating. The left side of the screen are what are called thumbnails. These are navigational images that allow the doctor to move around within the study. Each one of those thumbnails represents a different series of images. A series can be one image or it can be a group of images. When you're looking at a movie of a heart beating, that's a lot of images that are being run together in a loop. The entire procedure that's illustrated on that screen is called a study or a procedure. And that's the person went into the

machine and we came out with all of these different images. So that's just sort of the background of the terminology we'll be using.

The goal that I just described of being able to use a standard Internet browser to make diagnosis is stated in the '381 patent as the -- under the summary of the invention as what they were setting up to do. And this is an important phrase in the patent, so I would like to read it to the Court.

"The Present Invention proceeds from the realization that if medical images of different formats could be processed in such a way that limitations of current Internet standards could be overcome, any standard Internet browser could be used as a diagnostic workstation to allow any medical image to be viewed from any location on earth without specialized hardware or software."

That's the essence of the invention. That's what the industry has come to know as a zero-footprint viewer and that's what we're arguing about today.

The WebPAX product has been successful. It's been installed in major medical centers across the country, including Duke, Ohio State, and Johns Hopkins. We're here today because Heart IT's patents are being infringed by a much larger competitor, one who is taking customers and market share from our company as a direct result of this

infringement. This is occurring at a time when Heart IT should be enjoying the fruits of its innovation, a term described by Merge's own publicity as having favorable regulatory headwinds, a time when the federal government is spending tens of billions of dollars to encourage hospitals to move to image-enable their medical records.

Last August, just as we were preparing to file this complaint, Heart IT found itself fighting for its very survival. Merge and now several other large players in the medical industry are rushing into the zero-footprint market that Heart IT created, and they're taking away customers with their size and their willingness to infringe this patent. The injury Heart IT is facing is irreparable and the company needs the Court's help to hold on to its position in the market until a full hearing on their case next July.

Merge has argued that Heart IT shouldn't be given a preliminary injunction because they waited too long to file this motion. Dr. Judd explained in his affidavit that for a company of his size just getting a complaint prepared and bringing a large company like Merge to court was a significant undertaking, and it took many months to occur.

When it became obvious that the "meaningful use" guidelines that were being written by the government and were driving the move to image-enabled EHR, electronic

health records, were going to be released in 2014 or were going to come into effect in 2014, they realized they couldn't wait until then to stop the infringement. So a preliminary injunction was prepared and filed last December. The company's timetable was reasonable, prudent, and was as fast as could be expected for a small company in this situation.

The Court has established firm ground rules for today's argument, and we plan to stick to the issues and claim construction that we briefed in our motion. With those limitations in mind, I would like to proceed to a review of the four factors.

THE COURT: All right, sir.

MR. LESTER. The first one is likelihood of success on the merits. We need to prove that we're likely to succeed on infringement of Claim 1 and that we're like -- even taking in mind the burdens, that we're likely to withstand the validity challenge by Merge.

Now, to prove infringement, we've got a lot of words to wade through. Claim 1 of the '381 patent is very long. A lot of these words repeat themselves, but I think if we break it into smaller pieces we can parse through it rather quickly.

The first element is: "A method of managing" information -- "medical information, comprising receiving at

a first computer a plurality of image series resulting from a patient medical imaging procedure."

We have an illustration here at the top of the patient who's going to undergo a procedure. She's going into an MRI. The next level is the series of pictures that are taken during that procedure and then each of those series can consist of one or more single images. There's no real dispute that Merge's product does these things.

The next element is: "Each image series comprising one or more digital medical images in a format that is incompatible with displaying in an Internet web browser."

Merge has argued in its opening brief this term was vague and ambiguous. We disagree, especially in the context of today's hearing. The specification states several times that DICOM is not a browser-compatible format. For example, up here it says --

THE COURT: So DICOM is what you're attempting to move away from with your patent?

MR. LESTER: What we do is we take DICOM, which is what comes out of the scanner, and we convert it so that it can be viewed on the browser. So DICOM is not browser compatible. What gets sent to the user is.

THE COURT: So what happens initial -- before your process is in play, what happens with DICOM? Are you saying that the images are produced; and in order for someone out

in the field to use them, they would have to have a designated workstation as if they were in the hospital doing the same thing?

MR. LESTER: That's what the prior art taught. It also taught putting a lot of extra add-ons and plug-ins onto a PC to translate the DICOM images. What we do is we do it without having to add that extra stuff. The DICOM image is what comes out of the machine. It goes into the archives at the hospital. What this invention does is it makes it accessible on any device with a standard browser.

THE COURT: All right, sir.

MR. LESTER: So within the context of this invention, DICOM is defined in the patent as not browser compatible; and Merge's product literature and the testing that was done by Dr. Grizzard establishes that the input to the Merge system is DICOM files. So they meet that element of this claim.

The next element is: "Providing a pointer associated with the patient medical imaging procedure."

The top picture here is from the patent. It's showing a pointer and the bottom picture is the Merge system also showing a pointer. Again, this is when you -- Dr. Grizzard testified if you click on that or if you select that highlighted yellow line there the medical imaging procedure appears.

The next element is: "In response to user selection of the pointer at a second computer" -- and again, the second computer is the user's computer -- "providing an Internet web page for display in an Internet web browser on the second computer, the Internet web page forming a user interface for a medical image workstation when displayed in the Internet web browser."

The top picture here is Figure 16 from the patent.

It's a little dark, but that's described in the specification as having a series of still pictures and movie pictures. The bottom picture is a picture of Merge's workstation. You can see that it has — well, we'll get on to the elements that it has, but it was testified to also by Dr. Grizzard that that had the elements of a medical image workstation.

In its surreply, Merge argued that a medical image workstation did not require images at full resolution. That was an issue that was brought up there. They speculated that that's how we were interpreting that element of the claim. We agree that that term doesn't require full resolution images. What requires full resolution images is the phrase at the end of the claim that says it has to permit diagnosis. If the Court will permit me, I'll just talk about that at the end when we get to that clause of permitting medical diagnosis.

The next element is: "Without requiring software executing outside the Internet web browser on the second computer."

This is the essence of the zero-footprint invention. They don't require any of the things that will cause a pop-up like that to appear on your computer. They don't require ActiveX. They don't require Java. They don't require any extension to the power of the browser in order to view the medical images. All you need is a standard browser.

THE COURT: Isn't it part of the argument, though -- and I'll let you address it, as well as the other side -- that as to the second computer some of those things are internally already there as a part of the Internet web browser? They just don't pop up.

MR. LESTER: If it's fully installed, that's correct, but eventually it probably will. And what we're saying is it's -- it needs to be able to run in essentially any computer that has the standard browser.

THE COURT: So how do you define the standard browser? What's encompassed in that? I turn on my computer. Routinely I go to an Internet browser. I don't look at how I got there, but it's then -- if I go then to a site looking for something, that's what comes up. What -- what distinction are you making here of not requiring any

other software?

MR. LESTER: We're saying the standard browser doesn't have -- some people may ship a standard -- a standard browser with a plug-in attached to it. Some computer makers may already include that on the one that you buy, but eventually that third -- it's really a third-party piece of software. It's either going to run out of date and you're going to get one of these error messages or it's going to be -- or you won't have the right plug-in in order to view it.

THE COURT: So you have no control, though, what is encompassed with an Internet browser. You're just saying: We put the image on. We preconvert all of our images. The user comes in, clicks on using an Internet browser. We don't know how he got here. He just used an Internet browser.

MR. LESTER: We're saying anybody should be able to with a standard browser view our images. That's right. Whether he was lucky enough to have something preinstalled on it or not, the base model, the general lowest common denominator of that browser is the one that we're calling the standard browser; and we've established -- we've set up the invention -- the invention is claimed to be able to run in that standard browser.

THE COURT: All right, sir.

MR. LESTER: The Merge products at least appear to meet this requirement. In their advertising, they call it a zero-download application that runs entirely within a browser. In their DICOM conformance statement, they say it will run with only basic web browser requirements and no software download or install. So this term is understood in the industry. People are advertising for it. It does have a meaning and that's the meaning we think the Court should adopt.

The next element is -- let me take a deep breath because it's a long one -- "the user interface comprising a rectangular grid of one or more rows and one or more columns for simultaneously displaying a plurality of navigational images in the user interface on the Internet web page, and providing to the user the plurality of navigational images for display in the user interface of the Internet web page, the plurality of navigational images corresponding to different ones of the image series from the patient medical imaging procedure."

Again, this is basically just the concept of having the thumbnails that allow you to move from series to series of the imaging procedure. And, in fact, this element was described as being in Merge's product by Dr. Shih, who is their expert. He said, "As I understand it, the Accused Products provide users with 'thumbnails,' each thumbnail

representing a series of one or more images."

The next element also describes these navigational images. It says: "The plurality of navigational images comprising a format that is compatible for displaying in an Internet web browser without requiring software executing outside the Internet web browser on the second computer, the plurality of navigational images being converted to a browser compatible format before being transmitted over the Internet."

This is the conversion process where it gets to be browser compatible. Dr. Grizzard tested the images that were sent back from the Merge product and determined that they were being sent in a PNG format, portable network graphics, which is a browser-compatible format. It will show up in basically any web browser.

The next element is: "In response to user selection of one of the plurality of navigational images, providing to the user the one or more digital medical images of the image series associated with the selected one of the navigational images for display in the user interface of the Internet web page."

Okay. It means when you click on the thumbnail, the whole series of pictures that it represents will show up.

Again, Dr. Shih helped us out here. He said: "Selection of a thumbnail displays one larger-sized image from the

corresponding series of images. The user is able to 'navigate' the image workstation by scrolling through the images in the series of images being displayed, or by selecting a different thumbnail."

The next element is: "The one or more digital medical images comprising a format that is compatible for displaying in the Internet web browser without requiring software executing outside the Internet web browser on the second computer, the one or more digital medical images providing medical information to the user, the one or more digital medical images being converted to a browser compatible format before being transmitted to the second computer."

This is essentially the same as the previous requirement; that the navigational images be converted before being sent to the user's computer. "As with the navigational images" -- and Dr. Grizzard testified: "As with the navigational images...the medical image in Exhibit 4 was received from Honeycomb," from the Merge product, "in" the "PNG format." So it had been converted to browser-compatible format before being sent.

And we're to the last element: "Wherein the medical image workstation enables user navigation among the plurality of navigational images and the one or more digital medical images of the image series to permit medical diagnosis from the one or more digital medical images

without requiring software executing outside the...web browser."

This is the final clause of the claim. It summarizes the previous clauses and adds the requirement of permitting medical diagnosis. This term requires diagnostic-quality images to be transmitted in the second computer. In Exhibit A to our response to the surreply, so it was in the last pleading we sent to you, is a copy of the patent with all the references to diagnosis highlighted; and ten times in the patent it says "without loss of diagnostic data" or "without loss of diagnostic information." That's an essential component of the invention. When we say it permits medical diagnosis, it means that you don't lose diagnostic information when you're converting the images from the DICOM format to the browser-compatible format.

Also, in our -- we mentioned in the response in the file history -- this was one of the exhibits in Dr. Judd's affidavit. He referred to diagnostic-quality medical images as being lossless. In the industry, "lossless" means it maintains its full resolution. So that's an interpretation that we're asking the Court to make. That -- it's not really important for infringement, but it's important for distinguishing some of the prior art. So we feel that the full resolution of the images needs to be retained in order for it to permit medical diagnosis.

And taking a look at Merge's product, in Mr. Tolle's declaration he said that one of the features which drive sales of iConnect Access is the ability to perform a diagnostic reading of images.

And I'd also like to play a clip. In our complaint, we mentioned a YouTube video. We also provided a transcript of that YouTube video where a Merge employee was describing the Accused Products. I would like to play that clip for you right now, not the whole clip but just a couple of minutes of it; and I'd like the Court to note how many of the claim terms are mentioned here in just the description he gives of their product. He talks about thumbnails, series, browser compatible, no software to install, lossless images, and the fact that it's usable for diagnostics.

(Video clip played for the Court, not recorded.)

MR. LESTER: So we believe that there's a clear case of infringement here; that the Merge products do infringe all of the elements of Claim 1 of the patent.

In the briefing, Merge made basically one noninfringement argument. They said that software outside the browser has to run in order to deliver images and allow navigation; and they identified that software as some software on the web server, as well as software for controlling an input device, such as a mouse, and software used to translate the DICOM images into another format.

That interpretation is wrong for three reasons and these were the responses we gave you in the brief. It requires reading the final element of the claim out of context with the rest of the claim. In the final element, the words "on the second computer" weren't repeated for the fourth time. They were left out. It just said "without software executing outside the browser."

They took that to mean that if any software was running anywhere else in the system that there wouldn't be an infringement and that's inconsistent with the previous elements of the claim because the previous elements of the claim required the server to provide images and to provide things to the second computer. It's not going to be able to provide things to the second computer if it doesn't have software running on it. So it's internally inconsistent.

It's also inconsistent with the preferred embodiment, which describes people clicking on things to select and describes the server sending things back and forth; and I've just highlighted a view of those references here on the next slide. Just highlighted in red is all the references to "clicking," which would obviously require mouse software on the first computer and things being sent. You have images sent by the http server to the browser. You have things being transferred from the server to the browser.

So their noninfringement argument from the briefing

that we're discussing today is just -- it doesn't work.

It's inconsistent with the specification and it's inconsistent with the rest of the claim. So we feel like we've -- that's what we've got to say about the infringement element of the likelihood of success on the merits.

I'd like to turn to the invalidity arguments and their invalidity arguments in the briefing basically come down to they believe it was anticipated by Feingold. Now, to anticipate, that means every element in the claim has to be taught by a reference. They also claim it was anticipated by Sakusabe and that it was obvious.

Let me first turn to Feingold. Feingold is a 1997 article describing a report distribution system that was set up in a hospital in Pennsylvania. It converted DICOM images to GIF files, which are browser compatible, but it lacked most of the other elements of the claim. Most importantly, Feingold converted every DICOM image to a browser-quality image by subsampling or reducing the resolution of the images to eliminate 75 percent of the diagnostic information that's in them.

Now, they're using big numbers there. What they say is you take a CR image, computed radiography, that's 2048 by 1780 pixels. That's got a lot of pixels in it. You have to multiply those two together to get the resolution. And they reduce each of those numbers by half to 1024 by 890.

Putting that into terms that are easier to process, if you started with a 10 by 10 matrix and reduced it to 5 by 5 -- 10 by 10 has a hundred pixels in it, 5 by 5 only has 25. So you're making the same ratio of a change to these images.

So what Feingold does is he reduces the quality of the image so they're smaller and can be sent around easier. So that does not meet the requirement of being able to permit diagnosis from the images because they've been reduced in such dramatic quality. They don't have the same amount of diagnostic information that the original DICOM images had.

Another limitation of Feingold or another element of Feingold that doesn't meet the claims of the patent is it — the only navigational image in Feingold is the study image. It's a thumbnail in the study box. Clicking on it either loads a single image or a single series, but it doesn't load the entire study. There's nothing in the article that it loads a plurality of series as required by the claim.

So to summarize, Feingold lacks diagnostic-quality images. It lacks receiving a plurality of series from the study. It doesn't have thumbnails that correspond to multiple series, which is also a requirement in the claim, and it doesn't provide you with navigation using thumbnails. Other than that initial button where you select the study and maybe a series pops up, the only navigation is these "next" and "previous" buttons in the Feingold reference.

Let's turn to the Sakusabe reference. Sakusabe is a 2000 article describing another report distribution system that was implemented in Japan. It converted images to PNG and JPEG formats, but it also lacks many of the elements of the claim. Most importantly, it's not prior art. The invention of the '381 patent was disclosed to Northwestern and was conceived in the summer of 1999, at least six months before Sakusabe presented his paper in 2000 so --

THE COURT: Was that done in 1999 as a part of '381 or some other patent?

MR. LESTER: It was the -- well, it disclosed the invention that became the '381. It was -- the history of the '381 patent is there was an original patent application filed in December of 2000 and then six patents have issued from that so far. There's other ones that may issue in the future. '381 is one of those patents that issued from that original application and the disclosure that was done in the middle of 1999 covers those inventions.

Another issue with Sakusabe is it's only a series viewer. He only calls his product a series viewer and he says what happens is it displays a series of DICOM images that are in a directory.

Now, in that article, Sakusabe also points out other limitations that take it outside the scope of the '381 patent. In his conclusion, he said: "For a radiologist who

wants to use this for primary diagnosis, there is some lack of performance."

He also said: "We did not focus the issues of acquiring, managing and selecting images, which is important for any actual display system."

And again, that managing and selecting images is moving them around with the thumbnails and being able to select different series. So he didn't address the same full scope of the problem.

And so again, to summarize Sakusabe, it's not prior art, it doesn't receive pluralities of series of images, it doesn't have a pointer associated with a procedure, it doesn't have thumbnails that represent series, and it doesn't allow the navigation of the thumbnails in the series to permit diagnosis. So again, Sakusabe doesn't anticipate.

The obviousness argument in the briefs was lacking. They listed a number of references, including some that aren't prior art, and they've never really attempted to correlate individual references to individual elements of the claim or to provide you with any reason why you would combine references to produce this invention.

Even if they had done this, though, the law provides a number of objective factors of nonobviousness that the Court can look at to determine whether or not the invention is obvious; and those factors include whether there was a

long-felt need for this solution, whether people have taught against it in the literature, whether there has now become widespread acceptance of it in the industry, whether others tried and failed, whether there's been copying, and whether there's been commercial success. I would like to just hit on a couple of those from the evidence we've submitted.

As far as long-felt need, one of the articles submitted by Merge's expert was written by Mr. DeJarnete around 2000 and he said "there has been much talk about the use of Web technology in medical imaging."

Now, in addition to that, there were hundreds of references that were cited of different attempts to try to solve the issue of distributing medical images through the Internet and 150 of them were examined during the prosecution of the patent and another large number have been provided by Merge in the —— during the process of this case and all of those tend to show that there was a need for this solution. It's just nobody had either asked the right question or come up with a way to solve it.

Teaching against. Again, Dr. DeJarnete said: "This simple Web server-based teleradiology model...is unsuitable for any application other than the transfer of an image with a text report to referring physicians for record keeping and/or patient consultation purposes."

He described the general outline of what we were going

to do, and then he said, "But you can't make it work. It's not suitable for diagnosis."

The Huang textbook that we cited also, which was dated in 2004, said the web-based technology simply can't do this.

So there was -- let's see. Let me just hit one other one that was in the file. In 2006, doctor -- Heart IT sent some letters out to competitors inquiring about whether they infringed the first patent at issue because they were advertising things that were called web-based medical imaging viewers. He naturally thought maybe they were doing something that was like a zero-footprint.

He sent a letter to Dynamic Imaging, which is one of the competitors; and in 2006, their technologist wrote back:

"Any person skilled in the art and the industry of medical imaging will confirm that functional capacity of a web browser is not enough for building a fully featured enterprise PACS for primary reading."

Again, when you translate that into the patent, they're basically saying that this is not possible. So they're teaching against the idea that you could actually use a simple browser-based format for medical diagnosis.

A few years later, though, the industry has accepted it. One of the -- this was a table that was from Dr. Judd's affidavit. He used the top ten competitors identified by Merge's Mr. Tolle and went to the FDA database and looked to

see if they were -- when they decided to offer a zero-footprint viewer. All ten of them now are either advertising a zero-footprint viewer or they have filed for FDA approval for it, and this gives the dates. Most of them are in 2011 and 2012, starting with -- and they're starting to hit the market because it's -- and I think that demonstrates a general industry acceptance of this concept of the invention of the patent.

And as far as copying and commercial success, Merge has had a lot of commercial success with this. If you look at the Merge overview that was also in Judd Exhibit 34, they claim a 61 percent market share of their interoperability solutions; and if you'll note, the products that are listed in there are Access, which is the zero-footprint viewer, and then Share and Enterprise Archive. Those are archiving systems that will store the images and make them available to be shared with other people.

But Mr. Tolle again helped us out there. He said, "It is my opinion that if Merge were enjoined from selling iConnect Access and Honeycomb Image Sharing, Merge would have great difficulty maintaining its present sales levels for many of the products identified in paragraphs 37 and 38 above."

And the Share and Enterprise Archive are those products that were among those products that were listed above.

And in terms of success, Mr. Tolle also testified that these products are spectacularly successful. They've had tremendous sales growth. I'm not going to quote the figures because they were produced as "Attorneys' Eyes Only," but Your Honor has the unredacted version of Mr. Tolle's declaration. It shows that it has grown rapidly since its introduction in 2009 and the sales projection projected sales growth is also rather remarkable.

When these objective factors of nonobviousness are considered, we believe that the Merge's defenses of invalidity are not going to prevail.

I'd like to move on to the next element, irreparable injury, if the Court has no questions.

THE COURT: You suggested that there was some point in time that Merge, as you argued, became aware of zero-footprint technology that you were using that prior to that time that they were not using that.

MR. LESTER: That's correct, Your Honor.

THE COURT: What were they using, to show the distinction between that and what they started using, after 2006 or in 2008 or 2009?

MR. LESTER: They were using a product that did require a download. I believe it was ActiveX. They've got their technologist here. It required extra software beyond the web browser in order to display the images. Then they

got religion and realized that the zero-footprint viewer was the way to go and have been extraordinarily successful. They were the first really large company in the industry to embrace the zero-footprint viewer and market it as this interoperability solution that makes it much easier for people to put images into their system.

THE COURT: Is there any difference in terms of how a user gets access to the images from DICOM from what you're doing and what they have done or started doing?

MR. LESTER: The images have to be converted -- to get into our system, they have to be converted on the server side and sent to the user.

THE COURT: But do you do this without any initial request from the user? Are you just pulling a group of images down and hoping you get clients asking for them or is it the client asks and then you start the process of downloading?

MR. LESTER: Oh, well -- well, it can go either way. The client can ask for the -- say I want -- he'll navigate to the web page. He'll pick up a patient. He'll say, I want to see the MR study. And the system, if it already has the images converted, it will send them to him immediately.

THE COURT: Is there any distinction between what your patent calls for in that instance compared to what

Merge might have been doing or might be doing?

MR. LESTER: Well, that's certainly an argument that Merge is making. They're saying they do theirs on the fly, which means they don't do the conversion until the user request comes in. Our patent doesn't preclude that. In the specification, it says it's preferably done automatically before the user requests it, but it doesn't say that it has to be done automatically. It certainly leaves open — the claim is written in such a way —

THE COURT: But does your patent say that's not necessary as a part of what we do; that there is no "on the fly" or if -- put it this way: If someone is using on the fly, that does not infringe on our patent.

MR. LESTER: No, it does infringe on the patent.

THE COURT: And I'm asking you to explain how that happens.

MR. LESTER: Okay. Well, the patent describes that it needs to be converted before it gets transmitted. It doesn't say it has to be converted before it gets requested, which is the spin they're trying to put on it. The patent — the critical difference between our patent and the prior art is our patent does the processing on the server side. So it converts the image on the server side before it gets sent to the user.

The conversion can occur before or after. It doesn't

matter when -- whether it's before or after the user has requested it. And, in fact, in the specification we describe a system that is a real-time system, where the user just logs on and the images are streamed to him as the procedure is being done. Now, that's obviously --

THE COURT: So there's no delay.

MR. LESTER: Well, there's just the delay of getting the images processed and then they just stream to the user. So there isn't even a request. So if your definition is you have to wait -- you have to process it before someone requests it, this is -- on the real-time system, the request happens first and then the processing occurs later while the -- while the procedure is being undertaken.

Again, we can also go into the details. The flow charts that show how the system operates don't put a restriction that says that the conversion of images has to occur before the user requests. If you look on Figure 3 of the patent, the user request is number 200 and there's no limitation before that. There's nothing that says that all these conversion steps that are on the left side of the page have to occur before the request. The user request is just floating up there. It can occur before that conversion occurs or after. There's no restriction that limits it to that sequence, unlike Figure 1 which is the -- describing

the prior art. In the prior art, it says the user request has to occur and then the conversion will happen.

THE COURT: All right, sir.

MR. LESTER: So let me move to irreparable injury. The legal test that we described in the briefs includes several factors: a substantial amount of competition in the field; large presence by the Defendant; the patent could help the Plaintiff establish a market position and establish business relationships; the potential injury is unpredictable; and in the absence of the injunction, other potential infringers would be encouraged to infringe.

We think the *Hybritech* case is spot on in this situation and so I would like to just go quickly through the evidence we have for those elements.

I come back to this table of top 10 competitors to show there's a substantial amount of competition in the field. I don't think Merge is going to argue that there isn't a lot of competition in the field. Mr. Tolle said that over and over again in his testimony.

Defendant has a large presence in the field. This is where we sort of differ. Merge says they don't have a large presence, but in our experience they do. They — and in their report to their investors, they again claim the 61 percent market share of interoperability solutions and a large number of clients. They are taking the first move or

advantage as a large company that's a stable company that has a good marketing presence out there and they're usurping the position that Heart IT believes it should have.

Could the patent help the Plaintiff establish a market position and create business relationships. That was the essence of our business plan and that's -- in 2010, Dr. Judd and Heart IT submitted a business plan as part of an NIH grant; and they described how they were going to use their proprietary technology to gain a foothold in the market and use it to expand the use of zero-footprint technology. That was the plan. It actually worked.

In 2010 when they competed against Merge at St. Vincent Hospital in Indianapolis -- Merge and several other competitors were bidding against Heart IT, all these big companies against little Heart IT, and Heart IT won that bid. They were able to install their system there.

However, in the meantime, Merge switched over to a zero-footprint system. They went back to Ascension Healthcare, which is Heart I -- which is St. Vincent's parent company, and now they're the preferred vendor for all of the 500 hospitals of Ascension and Heart IT has been notified that they're not going to get their contract renewed at St. Vincent's.

The big difference between the first one -- the first solicitation in 2010 and now in 2013 is that Merge has

established itself as a zero-footprint viewer.

THE COURT: Are there other factors associated with Merge's product that made it more marketable than just zero-footprint technology?

MR. LESTER: It certainly had other attributes, but Heart IT's product is full-featured and beat out the Merge products in 2010.

THE COURT: So they didn't add anything new, other than zero-footprinting, that allowed them to be a more competitive source for you?

MR. LESTER: Not that we're aware of, sir. We weren't involved in the procurement or in the process.

It's -- but from what we've heard -- and Mr. Perez is here to testify if you want to hear it -- the folks from Ascension said that the zero-footprint was an important factor in the decision to move over to Merge.

I think I mentioned Mr. Hiram Perez is the vice president of sales for Heart IT and he's here also.

The next factor is whether the potential injury is unpredictable. Dr. Judd mentioned several things in his declaration that pointed out the intangibles with relation to losing contact with some of these customers. Extensive communication with the customers helps you develop your future product line, and the loss of the communications with the folks at St. Vincent and Ascension is going to impair

our ability to be competitive in the future.

Also, other factors that were mentioned that have been discussed in a number of the cases were loss of market share, loss of goodwill, and loss of brand recognition; and we feel that the loss of market share to Merge as a result of this infringement is going to irreparably damage the company.

And the final factor from Hybritech is: In the absence of the injunction, other potential infringers would be encouraged to infringe. We feel like they feel encouraged right now. We would like to turn that one around and say if we get the injunction we will certainly be able to discourage them from continuing to expand into the zero-footprint market.

The next factor is balance of the hardships. This is a classic case where balance of the hardships should be considered. The size of the parties, Merge is about a hundred times the size of Heart IT. The products of the parties are in direct competition, except Merge has a lot of other products beside the zero-footprint viewer and the associated products, and the revenue sources of the parties.

Let's just do a quick comparison. Heart IT revenues of 3 million and 17 employees. The zero-footprint viewer is the heart of its product line and affects a hundred percent of sales. Merge, in their filing with the FCC, they said

248 million last year, 860 employees. iConnect Access is part of a diversified product line that they have and it accounts for less than 3 percent of their gross sales. The sales of all related products that they've listed back in that 61 percent item is less than 15 percent of their gross sales. So it might be a hit, but it's not like the hit that Heart IT takes when it loses sales of its zero-footprint viewer.

And finally public interest. The Court is going to have to balance the rights of the patentee against the rights of the public. We'd like to make that an easy job for you. We're seeking a narrow injunction. We don't want to affect any of Merge's current customers. We only what to enjoin advertising and new sales on the Accused Products. And we feel, as we mentioned in the briefing, Merge can substitute their old non-zero-footprint viewers that are already FDA approved. We feel like if they wanted to continue selling their combined products they could put one of those viewers on top of their archiving systems. So we feel like it would have no substantial impact on the public, but it would enable Heart IT to stay in the market.

THE COURT: All right, sir.

MR. LESTER: Thank you, sir.

THE COURT: Yes, sir.

MR. TRUAX: Good morning, Your Honor.

THE COURT: Good morning.

MR. TRUAX: It's Terry Truax on behalf of Merge Healthcare. Your Honor, again thank you for your time and your patience in hearing us this morning. I would like to respond to Mr. Lester's comments and also address very specifically the issues that are in front of the Court today. Before I do so, Judge, I thought it would be helpful, Your Honor, to give you just a brief overview of who Merge is. Some of that's presented in the papers, but just to get a sense of it.

Your Honor, Merge is incorporated under Delaware laws, as alleged in the complaint; and it's a company that has as its mission to develop software solutions that facilitate the sharing of images to create a more effective and efficient electronic healthcare experience for both physicians and patients. It's an enterprise — what they call enterprise imaging company, if you will, healthcare imaging company. That's a fancy marketing word; but at the end of the day, they help deliver imaging solutions and generally — solutions generally to the — to the healthcare market; and we're going to talk about that in my presentation, which comes out of the papers that Mr. Tolle, who I will introduce in a moment, has presented to the Court.

Your Honor, Merge is headquartered in Chicago. It was

incorporated back in the late '80s, but over the years has acquired other companies, including importantly -- and we'll get to this -- a company called Amicas at one point.

Actually, a company called Amicas, which owned a company called Emageon. And Emageon is spelled E-m-a-g-e-o-n.

And the reason I mention that, Your Honor, is because one of the customers, just to cut to the chase here, that Heart IT alleges somehow they lost an opportunity with is Ascension. You just heard Mr. Lester mention that. Well, in fact, what Heart IT fails to present to the Court -- and there's an utter deficiency in their papers, and we'll talk about that burden and the deficiency in a moment -- was why Ascension would switch. Right?

First, it presumes that Ascension did switch. In fact, Ascension was a legacy Merge customer. That means they were an existing customer on all kinds of products. And secondly, Your Honor, Ascension had an equity investment in Emageon at one point, which was later acquired by Amicas and then later acquired by Merge. So the idea that somehow Merge has somehow come in here and stolen, which is the —which is the inference and the suggestion, the Ascension business from Heart IT is absolutely completely unsupported.

THE COURT: Well, they had some reason to go to them for a product that was not previously available to them using the zero-footprint imaging --

MR. TRUAX: That is correct, Your Honor.

THE COURT: -- even though they might have had some connection with your predecessor. They did that of their own volition.

MR. TRUAX: That's correct, Your Honor. We'll talk about the market because I think as Your Honor evaluates the market and the issue of irreparable injury it's very important that the Court understand the multilayers of this market and how the market works.

Let me as a starting point, Your Honor -- before jumping to that, let me first make sure Your Honor has been introduced. This is Mr. Tolle, who is a senior vice president of strategy and development for Merge. He is a very senior executive of Merge and is based in Chicago, came here today for the hearing, Your Honor.

In addition, behind me in the back here is Mr. Atul Agarwal. Mr. Agarwal is the chief IT officer effectively. He has got a slightly different title, but effectively is the chief information technology officer for Merge. Your Honor, Mr. Agarwal, who submitted a declaration in opposition to the PI, is based in Toronto, in Canada; and he came in to court today also to be here to answer any questions that the Court may have.

Your Honor, you'll also see from the papers that we submitted, actually submitted by prior counsel, but that

Merge submitted in opposition to the PI, there was an expert by the name of Dr. George Shih. Dr. Shih is on the faculty at Cornell Medical School in New York City; and for various reasons, he had a conflict today and couldn't be here.

But irrespective of that, Your Honor, we had before ——
long before we knew of this hearing being scheduled and long
before we knew of Dr. Shih's conflict, frankly, we had
engaged Dr. David Clunie, who is a world-renowned expert on
imaging; and Dr. Clunie has submitted declarations already
in this case on the issues of claim construction, which the
Court has in front of you, albeit not on the PI papers. We
did submit a supplemental declaration last night.

THE COURT: Well, let's not waste time on that because I've indicated I'm not going to consider it.

MR. TRUAX: Yes. I understand, Your Honor. I just wanted you to know who he is and why he's here, Judge.

So, Judge, this is a preliminary injunction proceeding; and Your Honor, of course, has experience with that and great experience. You know, the Court -- this Court has an array of powers before it; and some of the most extraordinary powers that a Court has is to deprive somebody of liberty following a procedure, a process at trial; but an equally -- almost equally powerful tool that a court has is the tool to enjoin a party from doing something, to enter an injunction. It's a serious remedy. Your Honor is familiar

with the plethora of case law from the Supreme Court down through the Fourth Circuit, through the Federal Circuit, through every circuit about why --

THE COURT: We can make that assumption and move on. That's why I'm here.

MR. TRUAX: Yes, Your Honor.

THE COURT: Move on.

MR. TRUAX: The elements -- and I would just like to put up briefly -- I don't know if we could get the slide to show up. Your Honor, we also have a few slides.

If you could flip to the next page.

Your Honor, there's a few elements. I just want to make sure we're oriented on them. We — the Plaintiff, that is, Heart IT, must show that there's a reasonable likelihood of success on the merits. They have to show irreparable injury in the absence of a preliminary injunction. They have to show that there's a balance of hardships tipping in Heart IT's favor and ultimately they have to show that the injunction's favorable impact on the public interest outweighs the burdens and hardships on others. And that's, of course, standard case law that Your Honor is familiar with.

There's a few other points of law here that are relevant, I think again to orient us. As Your Honor just recognized, the preliminary injunction is a drastic and

extraordinary remedy, not to be routinely granted. And this is important, Judge, what is the burden in this proceeding because at a trial -- when we get to a trial on the merits, the Plaintiff has the burden of proving infringement by a preponderance of the evidence. As a defendant, if I want to prove invalidity at trial, I have a burden; and that burden at trial is to prove by clear and convincing evidence that the patent is invalid. But that, Your Honor, is not the burden at this PI stage. The burden at the PI stage that the Federal Circuit has repeated over and over again is that a preliminary injunction cannot issue if a nonmoving party like Merge raises a substantial question concerning either infringement or validity.

So, in other words, if we assert an infringement defense or invalidity defense, if the patentee cannot prove lacks substantial merit, not that we're going to win but just simply they have to — if they cannot defeat the fact that our claim has at least some merit to it, some substantial merit, the preliminary injunction must fail.

So, Your Honor, at the preliminary injunction stage, because of the extraordinary relief — of the nature of this relief, as Your Honor knows, it's the Plaintiff, the moving party, that bears the burden at every stage. It doesn't — they don't get relieved from that burden somehow.

And, Your Honor, that's a change in the law in the

patent context. It used to be in many of the cases -- in fact, the *Hybritech* case that Mr. Lester points to is a 1988 case; and while I'll concede that the elements that are recited in *Hybritech* are generally good law, I think it's important to understand that *Hybritech* was decided prior to the Supreme Court's decision in *eBay*. And there's a whole legion of cases decided prior to 2006 in the patent context, Judge, where somebody -- where if a plaintiff could come in and if they could presume -- if they could demonstrate a likelihood of success on the merits of infringement and validity that irreparable injury was presumed. That's no longer the law, as Your Honor knows. After *eBay* -
THE COURT: Well, why try to confuse me now with a recap of what the law was? Let's move on.

MR. TRUAX: Okay. Your Honor, I respectfully suggest that Merge cannot meet its burden as we've articulated it in the briefs and here before the Court.

The '381 patent, one of the three patents they've asserted, is not infringed, and we have raised -- and I believe it's raised in our papers and I'll be happy to amplify on it or answer any questions the Court has this morning and we have Mr. Atul Agarwal here to answer any questions the Court has about how Merge's products work. But they can -- there's a substantial question, a fair question about the merit of our claim as to whether or not

we infringe. We don't infringe and we'll walk through with the Court why we don't infringe. And for that reason alone, that first prong, they cannot establish that there's a likelihood of success on the issue of infringement, they lose.

Secondly, they have to show again that there's no fair substantial question that our patent — that their patent is invalid. Now, we've offered the Court the Feingold reference and the Sakusabe reference, and there's a reference buried in those or incorporated in those two references, the so-called Grevera reference, as well.

Now, Your Honor, those references -- Feingold,
Sakusabe, Grevera -- they were not before the Patent and
Trademark Office when this was issued. Dr. Judd, who
prosecuted this patent with his lawyers, never submitted the
Feingold reference because he didn't know about it and so
as -- and we'll talk about the Feingold reference shortly,
but that reference was never before the patent office before
this '381 patent was issued. So there is a fair question
not only of noninfringement. There's a fair question that
the patents are anticipated or obvious ultimately by
Feingold and others. So on those two bases alone that
should end the inquiry here.

Your Honor, let me pause for a moment because I want to go back to the issue of burden and on these first two issues

of noninfringement; and I think, you know, to cut to the chase in terms of proof, the papers that were submitted — and I understand Your Honor is restricting us to the papers that were submitted — by the Plaintiff included two declarations in the opening PI. One was a declaration from Dr. John Grizzard, G-r-i-z-z-a-r-d, as well as Dr. Judd; and Your Honor perhaps has read those papers.

In fact, Mr. Lester this morning referred to Dr. Grizzard multiple times as supporting their reason why we infringe, multiple times. I didn't count them up, but there must have been 10, 12 times in the record about how Dr. Grizzard said this and Dr. Grizzard says that. We deposed Dr. Grizzard, after some reluctance in producing him, yesterday and Dr. Grizzard in his deposition tells us that he's not an expert. He's not an expert in computer software. He's not really an expert in any of those issues to be able to opine on anything and, in fact, Dr. Grizzard is not here today.

So, Your Honor, on that basis alone, where they have the burden of proving infringement, that they have the burden of likelihood of success on the merits, their own doctor that offered up their allegations of infringement tells us when deposed under oath that he's not really an expert at all on these issues that are present before the Court. Now, that I suggest, Your Honor, that by itself

creates failure and creates a reason for the Court to summarily deny this motion.

But beyond that, Your Honor, beyond the issue of their ability to prevail on the evidence they presented on infringement and invalidity, of which we again think there's absolutely fair questions, they also cannot show irreparable harm. And, in fact, when you look at the irreparable harm — and we'll talk about this and I'm going to give you some facts to support this coming out of some of these declarations that have been filed — the injury here — the potential injury weighs heavily in favor of not only Merge but other customers.

The injunction they sought in the papers, when you look at it, talks about enjoining Merge from selling its iConnect suite of products. Well, the iConnect suite, Your Honor, as you're going to hear and I'll explain shortly when we talk about the products, doesn't include just the Access product, which is the viewer that I'll explain visually for you, but it also includes another suite of products.

And Your Honor asked, I think, the question cutting directly to that question. There are products. There's something called the vendor neutral archive or VNA. And I'll talk to you about what a VNA is. But a VNA is something that allows the system to be interoperable. And we'll talk about what that means, but that's not -- they're

not complaining about the VNA, but, in fact, if you enjoin the product that they want enjoined, you'll be enjoining us from selling our VNA product. That, Your Honor, would create significant irreparable injury with no relationship, frankly, to the '381 patent at all. So when you look at irreparable injury, we believe they'll fail on that level as well.

And then finally, Your Honor, when you look at the balance of hardships and public interest, we're talking about a preliminary injunction where we're scheduled to have a trial 12 months from now. The disruption that would occur to existing contracts, even with the now more narrowed limitation that Heart IT is presenting to you today, which is, of course, a retreat from the papers that were originally presented — but even with that more narrow relief that they're seeking today, it would create significant disruption both for Merge and also for third-party customers.

Your Honor, let me move and take these elements on.

I'll attempt to do it briefly and certainly be prepared to

answer any questions the Court has. I don't want to belabor

it, but I do think there are some elements to understand.

I'm sorry. If you'll go back to Slide 5, please.

Your Honor, the claim terms that come out of the '381 patent that we believe require construction include this

first bullet point: "Without requiring software that is executing outside the Internet web browser." And I'm going to explain that for you because it's a lot of, frankly -- and I say this respectfully -- patent gobbledygook, I'll call it, in some respects. It's patent claim language that sometimes can be very confusing to read, but I'm going to walk you through it so it's clear. That's one claim term to be construed. What does it mean when the patent claims "without requiring software executing outside the Internet web browser"?

Secondly, Your Honor, as we said in the PI papers, we have to -- we have to construe this claim. What does it mean when they talk about a format that's incompatible, sometimes refers to a format that is compatible, with displaying in an Internet web browser? What does that mean? And Your Honor has asked some questions of Heart's counsel in the opening presentation on that issue.

Your Honor, there were two other issues that we referenced in some of these supplementary papers. I am not going to spend time on the pointer issue because Your Honor has directed me not to. I've raised that issue in some of these supplementary papers. I'm not going to belabor that. "Before being transmitted" point was a question you asked Mr. Lester and I would like to address that briefly in our presentation.

Peter, if I could ask you to flip, if you would, to the slide at page 13.

Your Honor, I think to get a handle on claim construction -- to -- Your Honor, in order to assess whether or not we infringe Heart IT's patent, you have to start with this claim construction exercise. Now, let me stop for a minute. Mr. Lester has put up a picture of how the Heart product works and other things. This case, this motion is not about Heart's product. That's not what this case is about. This case is about Heart's patent, the '381 patent. And in Congress, as you know, we -- the Constitution enshrines this idea that we give parties the opportunity to have a patent, a monopoly to be able to practice an idea; but you're limited in that monopoly by the metes and bounds of the patent, by the claims. You don't get to expand the scope of your patent beyond -- or your invention beyond the claims.

So therefore, Judge, we believe it's essential for the record and for the Court to understand what is it that they're claiming in the context of these two particular terms or three: What does it mean to execute software outside the browser and what does it mean to have a browser — or to have an image that's browser compatible and how do you reconcile those two terms in the context of the patent that Heart IT applied for, prosecuted, and presented

to the Patent and Trademark Office.

So we want to walk you through that. Let me just make sure you — that the Court has the benefit of some of the language and lingo here. You're going to hear something called a PACS in a medical image system. Judge, this is a medical image system. There are imaging devices, scanners, you know, that scan and scan an image and then store it in storage and that ultimately — those images are then displayed on workstations. An example of a workstation, Your Honor, an image workstation, would be something of what's displayed here.

THE COURT: Let's not be so elementary. This is not my first patent case in my 19 years of being on this court. Your tone seems to continually suggest that you need to educate me. Let's get to the patent, the questions at issue. Don't try to educate me at this point.

MR. TRUAX: Okay, Your Honor. Certainly. And I apologize, Your Honor. I certainly am not -- I want to be respectful of the Court's time and I'll certainly move along.

I was prepared to explain -- if you could flip to the next slide. I'm sorry. Slide 15. There's a web browser -- "what is a web browser" slide.

Your Honor, I think Your Honor is familiar with web browsers. Obviously, there's a whole host of them.

THE COURT: Again, don't belittle my knowledge of computers and Internet browsers by being that basic.

MR. TRUAX: Okay. Well, Your Honor, I think one thing that frankly -- and I'm a patent lawyer. I had to have some explanation -- if you'll flip to the next slide -- how does a web browser work. I think that's the core to this patent, how does this web browser work and what does the term "browser compatible" mean.

And Your Honor may be familiar with this, but the way a browser works is there's -- for example, the Middle District of North Carolina has a web page. There's content on that web page. That web page, Your Honor, is written with script and other things that then delivers that content via -- via the means over the Internet to a browser. So that's how the Internet -- the Middle District of North Carolina website works. There's content written on the server -- at the North Carolina website server that's then delivered over the Internet to a browser that somebody can then look at.

Then flip to the next slide.

And so what is a web page. Your Honor, a web page is made up -- that Middle District of North Carolina web page is made up of various things. There's something called html and there's something called -- there are images and media and something called scripting languages that go into this. There's something called applets and plug-ins, and all of

those things -- if you'll flip to the next slide -- constitute what goes in.

Let me just give an example. The way you take -- use something called html, Your Honor, is html is what they call a markup language that's used and written in the text. It will then -- you can look on this slide. It will tell you -- html, you know, will tell you to write the color green and hello world, and it does that. And, Your Honor, the same thing -- if you pull up the next slide -- if you want to display an image, for example, you can tell it to take this image SRC and display an image.

THE COURT: You're wasting my time.

MR. TRUAX: Okay. I apologize, Your Honor. Then I'll move on. So let me -- let me move on then to the issue of the term here, specifically what is meant by -- you know, well, what is a DICOM image. I think, Your Honor, you asked that question.

And if I could ask you to flip to Slide 26.

Your Honor, this is a DICOM image here and a DICOM image is basically an image in a format like any other format, but this particular format has a lot of data in it. It has two basic components. It has what we call a header and it has pixel information and that is a --

THE COURT: The Court asks questions sometimes to help move an attorney along, not to suggest the Court is not

familiar with what the language is, so don't misinterpret why I ask a question.

MR. TRUAX: Yes, Your Honor. Okay. If I could ask -- so what did Heart IT claim here, Your Honor? And if you look at figure -- if you look at the patents themselves -- and if I could ask my colleague to put up Slide 28. Your Honor, Figure 1 on the left, which is the prior art, and Figure 3 on the right is what is claimed. And I think this is critical because again when we're talking about the metes and bounds of the patent, what did they claim here.

THE COURT: Just for your information, I have both of those figures in front of me.

MR. TRUAX: Okay. Your Honor, again, I want to be respectful of the Court's time. Would it be helpful for me to go through this or --

THE COURT: You can explain it as you choose to do with respect to what's there, but I have it in front of me. Whether you want to refer to it from up there, that's fine. Just go right ahead.

MR. TRUAX: Okay. Your Honor, I think it's critical to understand that Figure 1 on the left, this is the prior art; and there's multiple places in the specification -- and again the specification is what the patent applicant says to the Patent and Trademark Office in

order to get his patent, where the patent applicant tells the patent office that their patent -- their invention is different from the prior art because their invention, Judge, disclaims all sorts of user interaction.

As you can see in Figure 1, if you look at it, the way this Figure 1 is displayed, it talks about a user requests -- user makes a request for a single image. And that image has already been scanned in Figure 1 and so the image is then read into the database. And then if you look again at Figure 1, the images are then converted to a web convertible -- a web-compatible format. But then it comes down and -- if you'll see in the last box at the bottom, importantly, it talks about the user adjusts the brightness, the movie speed, the magnification, et cetera. It does all of those things. And then to the left -- you'll see here on the left-hand side of the screen it talks about the user has to wait.

Now, what do they mean by that? I mean, what does that say? Well, the -- the -- in the specification, if you go to the patent itself -- and if I could ask my colleague to flip to this slide here. This is some language from the specification and specifically, Your Honor, it comes from column 6, lines 64 to 65. And if you see the way that happens, all that user interaction with brightness, et cetera, here in the patent they talk about -- first they say

the responsibility for that entire process is divided among a series of software engines; and then in the next column, in column 7, they go on to explain one of those engines, something called the physiologic knowledge engine, which is basically an engine that predetermines the type of images that somebody would want to look at. That's what this patent ultimately was about. But that this physiologic knowledge engine is responsible for adjusting image brightness and contrast, adjusting image magnification, adjusting the movie frame speed, and other issued parameters important for diagnosis. It wasn't going to be the user.

If I ask you to look at column 3 -- going back to column 3, line 16, they made this very, very clear in the specification. They made this point that "diagnostic interpretation of the medical images requires the images are presented with appropriate brightness and contrast." And on proprietary workstations, they said "these parameters can be adjusted by the person viewing the images but control of image brightness and contrast are not features of current Internet standards (such as, for example, http or html)."

And they went on to say -- just below that, they said in column 3, lines 18 to 20: "It is possible to allow browsers to adjust image brightness and contrast, as well as other parameters, using Java," this programming language of Java. But they then went on to say that's not a good idea;

that's a bad idea.

As we've explained in the briefs, Judge, at page -- column 3, lines 26 to 39, they go on in the patent itself and they explain that Java has got all these limitations, lots of limitations, and they lay out these four reasons why.

Ultimately, Judge, what they're saying here — and if I could ask my colleague to go back to Figure 1 and Figure 3 on page 28. So on the left-hand side of this figure, Judge, they're saying all that user control that's embedded in there creates wait time. So we've got a different idea and the different idea that we have is this idea of no user interaction, right, no user interaction and no "on the fly" processing, in response to Your Honor's question.

Now, Mr. -- Heart IT's counsel references the issue of "on the fly" processing. Your Honor, the patent couldn't be more clear. I mean, there's a lot of cases that talk about where a patent applicant disclaims certain things. This is about as good a disclaimer case, Your Honor, respectfully, as I've seen.

If you look again back starting -- and we can start in any number of places; but, for example, in column 3 -- and I put these two up here for the Court to see quickly. But in column 3, lines 44 to 46 and then again at lines 59 to 61, the applicant said -- the applicant was distinguishing Wood

because what happened in Wood -- that was a prior art reference that the patent office had rejected all of Heart IT's claims based on Wood. The patent office said, You haven't come up with anything inventive because of Wood.

And they said no, no. "The approach of Wood, however, creates Web Pages 'on the fly,' meaning that the user must wait for the image processing to complete." And then they say down below, as you can see again at lines 59 to 61, as can be seen in Figure 1, "serial processing of image data 'on the fly' combined with extensive user interaction results in a slow, expensive, and unstable system."

So what did they come up with? They came up with -- if we go back to Figure 3, they came up with the solution that's in Figure 3. There's no -- a process that didn't involve any -- it involved limited, if any, user interaction. In fact, if you read this, you'll see, Your Honor, that the patent calls for preconverting these images. That's what the diagrams say.

And if you look here in Figure 3 at the left-hand side, it talks about no user interaction; and in the box toward the bottom there, it says all images of the patent (sic) are assembled into a single web base — web page; and then to the right there, all the image data for the patient is downloaded, but the user waits minimal time because the user is not requesting anything "on the fly." Everything in

Figure 3 has been preconverted, so it's all preconverted in there and there's nothing done "on the fly." Your Honor, that's not how --

THE COURT: And that was the point of my question to Mr. Lester. Have they downloaded or created as a part of the first process images for unknown patients that are probably in the market area where the user might be and the user doesn't have to say, "Well, give me Mr. Jones." It's already there. In the process of "on the fly," you have to wait for that process to then download those images and then convert them. Is that the distinction to be made?

MR. TRUAX: I think you -- you seize it correctly, for the most part, Judge.

The patent -- this patent and the specification for this '381 patent is nearly identical, slightly different but basically the same specification, as it has to be in order for them to claim priority back to this earlier patent, but the same specification as the other two patents that are part of the complaint before the Court.

All of these patents essentially claim this idea that we're going to -- instead of doing "on the fly" processing, which they specifically disclaimed, very clearly disclaimed, Your Honor, what they're doing is they're saying, "You know what? We're going to build an engine," these engines -- these processor engines that they talk about in the

specification, "and we're going to let those engines do all the work for us."

Instead of having, you know, Dr. Truax, if I were such a doctor, to sit there at the computer and adjust image brightness and adjust all these things, because that requires Java, which runs outside the browser, they say, to do that, what we're going to do is we're going to preconvert all of that. We're going to use this fancy knowledge engine. We're going to run all these calculations and we're going to preconvert this image and we're going to give you various images of what you might want.

So when somebody requests that image, they don't have to go through and process it right then because that will take more processing time. The image is already preconverted. So then at that point it is just a question of delivery of the preconverted image over the Internet, as opposed to a system, Judge, where I am sitting down at the workstation and I say, "You know what? I'd like to look at this particular image of a femur" or a bone of some sort. That's got to process it on the fly. "And you know what? I want to magnify it. I want to make it bigger." That requires another signal to the — to the — another message, another conversion process to magnify it again. "In fact, now I want to zoom in or I want to get more contrast."

Another conversion exercise. That, Your Honor, specifically

is what is taught against by this patent. 2 THE COURT: But that would be the case in the "on 3 the fly" method --4 MR. TRUAX: Absolutely. 5 THE COURT: -- to do that each time. 6 MR. TRUAX: That's right, Your Honor. Each time 7 that somebody sits down at a Merge workstation -- and, of 8 course, the technology is evolving dramatically, right, which I think -- and I won't digress at this point, but the 9 10 whole issue of web-browser compatible is -- is I think now antiquated because DICOM, which may have been not browser 11 12 compatible at one point is absolutely browser compatible today, but we'll put that to the side. The imaging -- the 13 14 "on the fly" processing which is done in the Merge product 15 is absolutely disclaimed in this figure. If you look at 16 Figure 3 carefully, that's absolutely what's disclaimed. 17 Now, today Heart IT says, "Oh, no, we -- this was our 18 preferred embodiment, but we weren't excluding other things. 19 We weren't excluding things. You know, 'on the fly' -- 'on 20 the fly' processing, we weren't excluding that." 21 Well, respectfully, Your Honor, I don't think you 22 can -- you can't read the claims and ignore the 23 specification in the file history, et cetera. You have to 24 read it in light of the specification and, respectfully, the 25 specification teaches absolutely that they have disclaimed

"on the fly" processing.

So, Your Honor, why does all that matter? Well, it matters because our product doesn't do what Figure 3 says, right? It doesn't do it and, frankly, nobody does that anymore because the technology has surpassed Figure 3.

It — this was — this technology in Figure 3 that was envisioned was maybe a good idea at the time, but it anticipated that web browsers and technology would remain static in 2000. Well, it didn't. Web browsers today are so much more powerful than they were.

For example, Judge, one of the -- the key issue here is is a DICOM image browser compatible or not. That's one of the terms Your Honor has to construe. Is it? The patent doesn't -- and this is important. The claim language doesn't say -- they don't claim DICOM. They don't claim -- and they say, We have an invention on converting a DICOM image. That's not what's claimed in this patent. What's claimed in the patent is an image that's not browser compatible. Now, they use DICOM as an example, absolutely, in the specification. It's right there in column 10. They talk about DICOM as being an example of a non-browser-compatible image. And what that means, Judge, just so we're clear, it means that you can't take that image and display it, as Mr. Lester was explaining, in a browser without it -- without requiring some additional download or

software. But today that's technically not correct. You can download DICOM.

And again -- again, at a preliminary injunction standard, where the issue is not whether we're going to win in terms of the ultimate merits, in terms of the trial, the issue is whether we raised a fair question. There is absolutely, Judge, a fair question as to whether or not DICOM is a browser-compatible image. And I'm happy to walk through the Court with that and why that is. I don't want to belabor the Court' time on that, but I will say, I guess for brevity --

THE COURT: Well, we'll accept that at the time the patent was in existence it dealt with DICOM as not being browser acceptable. What happened since then is not really relevant. But just in terms of then, that meant what their patent was because it was not browser compatible at that time. We'll accept that.

MR. TRUAX: Fair enough, Judge.

So the issue then is so what's browser compatible now and then, in combination, what is it — the way they've defined "browser compatible" — and I understand there's constructions offered in the PI and now there's new constructions offered. I certainly want to adhere to Your Honor's directive to stick to the PI papers, but I believe the issue — the current construction of browser or browser

compatible -- they say that a browser-compatible format is one that doesn't require any software -- additional software they call applets or plug-ins to be downloaded to run. That's their definition. And they also define "software executing outside the browser" to be basically the same thing. If there's software that requires a download or a plug-in, its software executing outside the browser.

Now, that creates a problem for them because it's a conundrum. It's a -- and it's a little bit of a brain twist, Your Honor; but if you work your way through it, here's the problem. There's something called JavaScript and JavaScript is different from Java. You hear all these -- I don't want to turn you into a programmer and I'm certainly not a programmer, Judge, but JavaScript is different. The patent talked about Java, but it then talks about Java in all these ways where Java has all these limitations, et cetera. The patent doesn't mention JavaScript; but in any event, it's our position that -- to be clear, that JavaScript is a software, for purposes of this patent, that runs outside the browser.

They say, No, no, that's not right, Merge.

MR. LESTER: Your Honor, I hate to interrupt counsel's argument, but this has gone way beyond what's — any of the issues that have been raised in the papers.

THE COURT: It's all new stuff that you're talking

about. If JavaScript was not available then -- and you can tell me whether it was or not, but you are seeming to put me in the modern-day environment as opposed to what we're dealing with in terms of the patent that's in existence here. That's why I was limiting you to what's before the Court as a part of a preliminary injunction. At claim construction later on all of this may very well be relevant and important.

MR. TRUAX: Okay. Thank you, Your Honor. And I apologize. I am trying to adhere to Your Honor's directive and I will work to do that. I do think it's, respectfully, important for the Court as a matter of claim construction even at this very preliminary stage that the Court --

THE COURT: But the Court -- as you're aware, the Court at a preliminary injunction stage can make a construction relevant to the preliminary injunction and may modify that at claim construction time. So the Court's not foreclosed from, even if I agree with everything the Plaintiff said, making some modification later as the case is fully developed.

MR. TRUAX: Okay. Again, I appreciate, Your Honor. I'll move through this.

I think the fundamental point, Your Honor, is whether these two terms, which are addressed in the PI papers, these two constructions as to whether or not there's software

running outside the browser or something is browser compatible -- we believe Merge has absolutely raised a fair question about that; and on that basis alone, Your Honor, the PI should be denied, because they can't show likelihood of success on the merits of that.

And Your Honor asked earlier -- and I won't address it any more than I have, that "on the fly" processing issue.

Again, that's another issue where there's been a fair question raised --

THE COURT: Well, the question is whether or not they disclaim it and you've addressed that.

MR. TRUAX: Yes, Your Honor. So -- Your Honor, so that's the issue with respect to noninfringement that's presented in our papers; and again, we believe there's a fair question. With respect to the issue -- and when I say "our papers," I mean the papers that were filed as of March 16.

With respect to the issue of invalidity, Your Honor, as Heart IT's counsel referenced, we did assert a number of bases for the patent being invalid and Your Honor is familiar with the concepts of 102 and 103. I won't go into those, but you know, 102 -- you know, the law of anticipation is again a basic principle here.

This patent -- this Feingold reference and the Sakusabe reference, as I said earlier, were not before the Patent and

Trademark Office. As Your Honor knows, the burden again is — the burden is on the accused infringer to show a substantial question. Vulnerability is the issue at this PI stage, not whether we're going to ultimately win. And I would suggest — and I'll be happy to go through it, but even with the points that Mr. Lester raised regarding Feingold, we've met those.

I think what's telling is the big invention that they claim came out of this is somehow this zero-footprint viewer; that it was able to take a DICOM image, which was not viewable in a browser -- a standard browser -- that's the big invention that we're told in these papers. And yet readily they agree that in the Feingold reference and in the Sakusabe reference that that's disclosed. That's not -- that wasn't some great new idea because Dr. Feingold came up with that idea and Mr. Sakusabe came up with that idea before the Merge folks did -- before the Heart --

THE COURT: The distinction that he makes in his argument is that, even though they made reference to it, they rule it out as being something that was feasible to work.

MR. TRUAX: Well, Your Honor, that I think is -they argue -- well, they argue that it's different. They
argue that somehow -- and I believe if I captured the points
that Mr. Lester cited in his brief and what he's put here is

that he's argued that, one, he agrees that it's browser compatible because it talks about a GIF format, but what he focuses on is he says that Feingold anticipates reducing the image or compressing it in such a way that you couldn't make a medical diagnosis. I think that was his example.

Now, the term "medical diagnosis," Your Honor, is a highly subjective term. What Dr. Judd may need to make a medical diagnosis may be different than what Dr. Clunie needs and so to say -- and that's -- frankly, we'll get to that in the trial on the merits of this case. That's another fundamental problem with this patent because it lacks definiteness. I mean, there's a whole problem around the term "medical diagnosis." It's -- one cannot precisely understand what it means in this patent.

As Dr. Grizzard said yesterday when we deposed him, he cited the Supreme Court's opinion about respectfully-- you know, obscenity. You know it when you see it. Well, that's classically the type of statement that the Federal Circuit has said is -- renders a claim to be invalid.

But we don't even have to get there because in the context of medical diagnosis -- here's an image and I'm putting it up on the screen in front of you. That's a hundred percent. This is a hundred percent conversion, captures every piece of the pixel. And let me put up 25 percent. That's what's claimed by Feingold.

Now, if you're an orthopedic guy and you're trying to diagnose whether the image on the left involves a broken leg or arm and the image on the right involves a broken arm, I would say that the image at 25 percent — absolutely you can make a medical diagnosis, anybody can make a medical diagnosis, that there's a broken bone in the right-hand picture. So to suggest that — you know, even if we compress it further down to 6.25 percent you can make that distinction. So to suggest that —

THE COURT: Well, a broken bone is different from some defect of the heart.

MR. TRUAX: Certainly, Judge. There are instances — the point is we're stuck with the claim language and the claim language talks about "medical diagnosis." It doesn't say a hundred percent. It doesn't say that. It talks about "without loss of diagnostic data." Well, what does that mean? I mean, there's — "without loss of data sufficient to make a diagnosis." Well, can you make a diagnosis based on 25 percent? 6.25 percent? The —

THE COURT: Well, if you're putting up an image of a heart and making that same argument, I might be able to answer you differently.

MR. TRUAX: Well, Your Honor, the answer may be the same. I don't have a heart to put up today. I mean, I came with a bone, but the --

1 THE COURT: Well, a broken bone is a broken bone. 2 At 10 percent I can tell that. 3 MR. TRUAX: Exactly, Judge, and that's exactly the 4 In the context of the patent -- we're talking about 5 the patent and the claim language in the patent; and the patent claim language, which we're bound by, talks about 6 7 medical diagnosis, not of a heart. It's not talking about a 8 heart. It's any. And so if Feingold anticipates this for 9 anything, for any such --10 THE COURT: Are you suggesting that what Heart 11 Imaging has would apply to any kind of medical diagnosis and 12 not specific to hearts? 13 MR. TRUAX: Absolutely, Judge. That's certainly 14 what they're claiming. I mean, these products are not --15 the products that they're trying to stop us from selling don't relate to hearts -- are not limited to hearts. 16 17 THE COURT: Certainly in terms of what you 18 illustrated or they illustrated as a part of your person 19 making a demonstration, he was showing the heart on the 20 iPad. 21 MR. TRUAX: Yeah, that's correct. That was their 22 product and they put up a picture of their product that 23 showed a heart. That's correct. But their product, as I 24 started out with --

THE COURT: Well, I was thinking of what he was

25

saying; that your agent or salesperson was out selling -producing an iPad to show that it had the additional
features that they were claiming were infringing. They were
showing your infringing product.

MR. TRUAX: Fair enough, Judge. I apologize. I misunderstood your question. You're correct. That's correct. On the YouTube video. I apologize.

But the point, Judge, is that if you -- there's a lot packed into that question, Your Honor. First, in terms of the products that we sell -- and I don't want to digress too much, but we sell a whole suite of products. One of the suite of products that we sell is something called a Cardio PACS and I'll explain what that is if the Court has questions about it. But in the context of a Cardio PACS, there is all kind -- there's a suite of software that goes with that, including a full diagnostic viewer they call it; and a full diagnostic viewer has all kinds of very robust tools on them, which I would expect that even Heart IT would concede uses software running outside the browser on that Cardio PACS product.

They're claiming infringement with respect to something called a universal viewer product, which is part of the Access suite, all sort of embedded in a larger suite of products.

The point, Judge -- and I don't want digress but stay

on the claim language. The claim language talks about medical -- data -- diagnostic -- data sufficient to make a medical diagnosis and it's not limited to a heart. They don't -- if they had claimed that this was only limited to a heart, we would have a different case. That's not the case we're dealing with. We're dealing with a claim that talks about diagnosis of this bone right here, as well as a heart, as well as everything else. That's what's at issue.

Your Honor, respectfully, Feingold anticipates; and for purposes of this PI hearing, absolutely we've raised a substantial question of it. The fact that it wasn't even presented to the patent office should raise a big flag, number one; but number two, the distinctions that — the medical diagnosis distinction, respectfully, is not — is not a base — doesn't defeat the substantial question that we've raised.

And the argument about images, that there's not a plurality of images and image series, I encourage the Court to read the Feingold reference; and I think after reading the patent, if you read Feingold, you would understand that that's a hypertechnical reading of this, which is not contemplated by Section 102. We have raised a fair question about that, Judge. Yeah, it's not correct, as my colleague says. In any event — Your Honor, so on the issue of invalidity, we believe they fail.

Now let me talk briefly, Your Honor, about -- on irreparable injury. I think the second prong of this PI and what the injury is going to be -- we have -- and again, I'm going to limit myself to what's in the papers. I mean, we did take Dr. Judd's deposition, which was a 30(b)(6) deposition, on the issue of irreparable injury and that was taken, Your Honor -- that was noticed up in April and it was not scheduled until last week. So the testimony from that is recent but -- and we have an interrogatory answer from as recently as last night about it. Your Honor, on the issue of irreparable injury -- from the Plaintiff's an interrogatory response.

Your Honor, the issue of irreparable injury, you know, again it's hard to quantify. I mean, certainly I agree that you'll find cases — and we cited a lot of these cases to you and Your Honor has seen them; I'm sure Heart cited a few of them — about where preliminary injunctions were denied because of lack of irreparable injury. Heart IT cites the *Hybritech* case, which, of course, goes back to the late '80s. They also cite an *Abbott* case, which is a more recent case. We cite a plethora of cases as well where the court — the Federal Circuit concluded irreparable injury is not met.

One thing -- there's a couple principles that come out of those cases I think, Judge. One is that loss of sales by

itself is not enough to establish irreparable injury. The fact that Heart IT may lose a sale, that's not irreparable injury because that's compensable at some later date. Even the court says in the Automated Merchandise case, Your Honor, talks about even in the case — and that's a Federal Circuit case, Your Honor, which is cited in our briefs, a 2009 opinion, where the Federal Circuit again talks about irreparable injury in that context where loss of market share — even loss of market share wasn't enough.

Now, why in those cases, when you parse through them, does the court say that's not enough? Ultimately, Your Honor, when I think you piece through it all, it comes down to proof and it circles back to that burden question. The Plaintiff has the burden and, respectfully again, the Plaintiff here has not met its burden of offering any irreparable injury. Instead, we get conclusory statements like "We're going to lose market share" or "Merge has a big section of the -- has a big segment of the market," a conclusory statement offered with no proof.

And to Your Honor's question about the nexus issue, why did Ascension Health decide to -- to go with this product, they could have offered that as proof by deposing somebody from Ascension Health -- from Ascension. They could have gotten an affidavit from somebody from Ascension. They have none of that, nothing. So the fact is there's a failure of

proof on that issue.

And in the case of Ascension Health -- and I'd be prepared to have Mr. Tolle testify if Your Honor wanted to hear from him today on that issue, but he walks through a whole litany of issues which Your Honor has -- has referenced in a question about the different desirability features. Merge, Your Honor, sells sort of -- basically three categories of products and I think it's important that Your Honor understand that because I think there's some confusion about, you know, what's at issue here.

So Merge -- Merge has basically two primary customers. They have hospitals and then they have these ambulatory clinics outside the hospitals. And, of course, there's doctors within the clinics and in the hospital.

And they sell three different kinds of product categories. They sell what's called a PACS product, which we talked about earlier. That does all kinds of things. The PACS system will have all kinds of things. It would include software that relates to a scanner.

You know, Merge doesn't sell the scanner. GE, Philips sell the scanner; but GE and Philips also sell software to, you know, get loaded into the system to have that image from the scanner read to a PACS system. And there's all kinds of reasons why some of the big players in this market, this PACS market, are companies like GE, because GE has a large

financing arm. They make the scanners. They finance the scanners and then they are able to bundle that with software and sell it to a particular provider. So GE is a very significant competitor in this arena. Philips would be another one, Siemens.

And there's a whole list of these that Mr. Tolle has laid out in his declaration, Your Honor, which we reference at paragraph 15, which Your Honor likely saw, starting on page 6. He lists there all of these various competitors in what's called the medical viewer market. Now, a PACS system includes a viewer, includes a scanner, includes all sorts of things, but it also includes a viewer or can include a viewer.

And there's lots of competitors. Mr. Lester is correct. There's lots of competitors in this viewer market: Calgary Scientific, Client Outlook, Vital Images, TeraRecon, Agfa Healthcare, Carestream, and the list goes on. You can look at that in the declaration. And if you were to narrow that market even more so to the zero-footprint viewer market, that's recited in paragraph 17, Your Honor, where there's all these other competitors: Carestream, Client Outlook, TeraRegion (sic), you know, Medical Insight, Calgary Scientific, Vital Images. Okay. Lots of competitors.

Why does that matter? Well, one of the issues is is

Heart going to be irreparably injured by failing to enter an injunction today and waiting until we have a trial on the merits where the Court can have and the jury can have a full record on this issue.

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

Well, Your Honor, Dr. Judd testified last week about a new transaction, a transaction involving Englewood Hospital that -- and this I think highlights the issue of why there's no irreparable injury. It's not as if you enjoin Merge and somehow Heart IT is going to have some great windfall. Even if they could show irreparable, even if they could show likelihood of success on the merits, which they can't, Englewood Hospital, Your Honor -- they competed for Englewood Hospital against ten or eleven other entities, including Merge they say, although Merge, Mr. Tolle will tell you he didn't know that he was competing against Heart IT. That was news to him. They compete against Merge. And who wins that deal? Heart IT? No. Heart IT doesn't win, but they want you to believe that somehow, man, if Merge hadn't been in there competing they might have won. Well, did Merge win the deal? No, Merge didn't win the deal. Englewood won the deal. Excuse me. Vital Images won the deal for the Englewood Hospital deal. So there's no -there's no injury to Heart IT because Merge was out there competing.

Moreover, there's no evidence, none -- and that again

goes to the issue of burden, Judge -- no evidence about what was actually offered to these various lost opportunities.

As Your Honor asked, well, what other suite of products was involved. I mentioned at the outset, when I started this, because I felt compelled to respond to it immediately, this issue about a vendor neutral archive. What drives sales in this market? Mr. Tolle put in his declaration -- he references something called interoperability. And what is interoperability? Again, another sort of fancy marketing word. There's a lot of facets to interoperability and one of them --

THE COURT: I'll accept that. But the point of the question is whether or not zero-footprint technology was the only reason why they lost. To the extent that if you accept that Merge had it and was using it, is that the only reason they lost market share or lost any particular potential client.

MR. TRUAX: Answer: Absolutely, unequivocably no. Mr. Tolle has noted that in his declaration and he will be absolutely prepared to testify, Your Honor, if you want to ask any questions about that. Absolutely it's not tied to the zero-footprint viewer.

Is the zero-footprint viewer -- assuming it were -- they could prove that it likely infringes and the claim -- the patent is not anticipated, you know, it's -- you know,

we market the zero-footprint viewer. You saw that in the YouTube video. We put it in our -- there's marketing literature about it that Mr. -- Mr. Lester and the Heart IT folks have attached to the PI, but that -- there's no evidence that that's the nexus; and the nexus requires, absolutely requires that there be a nexus between the alleged infringement and the alleged purchase.

Your Honor, I appreciate you -- you know, you being patient with me as I work my way through this. I want to cite one last thing on the irreparable injury point and I think this -- and I perhaps should have started with this because I think, frankly, this PI motion could start here and end here.

Judge, this patent issued in April of 2012. Now, there's a history to this patent and there's a history to Merge's — to Heart IT's belief that Merge was somehow using its patent. This is all in the record in the PI papers. There are three patents that were filed in the complaint in September. The two other patents that are at issue were filed — were issued by the Patent and Trademark Office in 2005 and then again in 2008.

And Heart IT believed that Merge was infringing its patents. It wrote to Merge in 2011 in January, before the '381 patent issued, and said, "You know what, Merge? You're using a zero-footprint viewer and you're violating our

patents." And they expected to hear a response because they expected they would be able to work out a, quote, amicable resolution with Merge.

That too is important, what that amicable resolution means; because for purposes of an injunction, even if you were to conclude that they're right on the infringement, they're right on invalidity, that they're right on all of those things, if they were prepared to give a license to us in 2011 that — that defeats the PI because the fact is the Court has said and — clearly in cases that if they're willing to license there's no irreparable injury.

But put that to the side. The issue here is one of timing and the delay here by itself defeats this PI. This patent is applied for in 2005. Now, to no fault of Heart IT, the patent office was very slow. Nothing happened. They filed this application with the patent office in 2005; and in January of 2011, Your Honor, right at about the time that they sent Merge a letter claiming that Merge was infringing these other patents, which had basically the same specification, the same Figure 1 and Figure 3 as are now in the '381 patent, the patent office issued what it calls its first office action. And you can find that in the file history. That's a public record. And that patent that — the examiner rejected all the claims, rejected all the claims. And then it took — and then Heart IT's lawyer then

submitted, as often happens, very routine, submitted a response to that. Eventually the patent goes through this whole examination process.

All that while Heart IT is studying Merge's products. Dr. Judd has confirmed that, studying it in January of 2011 after it sent its letter, February, March, April, all through 2011 studying Merge's product.

The patent eventually -- there's something called a notice of allowance that's issued by the patent office on February 9th, 2012, Your Honor. That's significant. And they had -- as often happens, as is routine, they had a certain number of days after that to pay their issue fee to get that patent, you know, issued. They could have waited until the end of May. Did they do that? No. They understood what urgency was, at that time anyway. And what did they do? They quickly paid the fee and Dr. Judd signed the declaration on March 12th, just a couple weeks later, and the issue fee was paid within a few day after that. And the patent then issues before the issue fee was even due in April and so they get their patent in April.

Now, do they do anything then? Do they -- did they rush into court given this claim that they have asserted back in 2011? Nothing. They do nothing in May, in June, July. We get to September and they file a complaint and they assert three patents, the three patents that are at

issue in this complaint, including the '381 patent. Do they ask, Judge, for a preliminary injunction then because it's urgent? I mean, they've been making this claim for a year and a half -- more than a year and a half by then and even before that they've been investigating it. They do nothing. Instead, they wait until virtually New Year's Eve to file a motion for a preliminary injunction before this Court.

Now, why do they wait? Well, the explanation we're given, respectfully, is not very compelling. There's no -"Because we're a small company we couldn't get it together.
We couldn't pull the resources together." Your Honor,
that's not a justification. And the Federal Circuit has
been clear that that kind of delay, which I would suggest
goes back -- you know, if this was so compelling, why didn't
they sue in 2011 on the two patents that they claim in this
lawsuit are infringed.

Your Honor, I would suggest that — and to be clear,
Dr. Grizzard yesterday testified that the inquiry that he
did, the nonexpert who submitted the declaration to offer up
their proof of infringement — so I'm not sure what
Dr. Grizzard's declaration is now. Certainly when we read
it, we thought he was being proffered as an expert, but I
guess not. But Dr. Grizzard told us yesterday that he spent
only eight to ten hours coming up with his conclusions.
Well, I don't — I'm at a loss as to why that couldn't have

been done in 2011, certainly shortly after April of 2012. 2 Their answer -- and they'll give you this explanation 3 about something called "meaningful use." You may hear that 4 term. It's in the papers there and in Dr. Judd's 5 declaration. Again, I'll be brief about this. "Meaningful use, " Judge, was -- is a -- basically an incentive program. 6 7 It's part of the stimulus program. It actually originated under President Bush originally, but then President Obama --8 it was part of the economic stimulus package. It was a 9 10 program put in place in the Department of Human Services to 11 help Human Services to encourage medical providers to do 12 certain things, and there's something called Stage 1 "meaningful use" and Stage 2 "meaningful use." 13 14 THE COURT: Let's stick with the harm question at 15 this point. 16 MR. TRUAX: Okay. So bottom line, Judge, is that 17 the timing, in our view -- a "meaningful use" does not 18 provide a basis for them to have delayed as long as they 19 did. 20 Your Honor, finally -- this is in the Tolle 21 declaration. I won't belabor it. You know, if you were to 22 enjoin them -- enjoin Merge from doing what they've asked 23 you to do, you would be enjoining the iConnect platform. 24 The iConnect platform doesn't include just a viewer. It

includes a vendor neutral archive which is used -- so you're

25

clear what that is, Judge. When you have -- when a hospital -- there's a hospital called Dignity medical systems. They have seven different PACS systems in their hospital. They have a GE system, maybe a Philips system, a Siemens system and some other system; and those systems all have to talk to each other. All those images have to be put into a vendor neutral archive, in one place, so they can all be stored and all the systems can talk to each other.

That VNA is not what's being accused here. Instead, what's being accused here is the viewer, which is part of that suite of products. If you enjoin iConnect, it will have a devastating impact on the product line for Merge.

Mr. Lester cites — he says it's 3 percent. I'm not sure where they get that. I mean, Mr. Tolle has submitted a declaration to you telling you that it's closer to 13 percent of their revenues as of last year, that suite of products. That would have an enormous impact on Merge as a company, not to mention, frankly, the rippling effect on other parties, hospitals.

Lurie Children's Hospital in Chicago -- I don't mean to be overly dramatic -- they have a Merge system in there with a whole suite of products. If they're not permitted, if they're somehow -- if that is interrupted, healthcare quality is going to be interfered with. That's not -- when you weigh that in the balance of hardships, that's not

enough.

Judge, you've been patient with me. I will take leave of this, but I just leave you with this. I appreciate your time. I think again, when you come down to this, the issue is one of burden. Respectfully, the Plaintiff has not met its burden on the papers alone that have been submitted to you because it fails proof.

But even if you get through the proof that they've put in front of you, the Grizzard declaration, which is -- I'm not sure what that is now. But even if you work your way through the Grizzard declaration, you cannot overcome this substantial question of noninfringement that we've raised, the infringement issues we've discussed, the Feingold/Sakusabe issues that we've discussed, and then fundamentally this timing question. That by itself, Judge, is fatal. And if it cannot prevail on either likelihood of success on the merits or irreparable injury, you don't even get to balance of hardships or the public interest. The law is clear that you must deny the PI on that basis.

Your Honor, thank you very much for your time.

THE COURT: Yes, sir.

Mr. Lester, I will give you a brief moment to respond.

MR. LESTER: Thank you, Your Honor.

Let me first talk about Dr. Grizzard. He's an expert. He's a radiologist. He submitted a declaration that said he

felt that there was infringement, but we told Merge yesterday that he's -- (A) he's not here today because he had a death in the family, but (B) he's -- we're proffering him for the experiments he did. And that's all I cited from what he did. He uploaded DICOM images and he downloaded PNG images. That's all we used his testimony for and that's all he needs to -- so he doesn't need to be an expert on claim construction in order to be valuable in that respect for our case.

Now, with respect to the whole disclaimer of "on the fly" issue, that wasn't an issue in the briefing. I would urge the Court not to even consider it today; but if you do want to talk about it, let me go back and visit it. None of the cases they cited in any of the briefing talked about disclaimer. It's a high burden to get — to say that a patentee has disclaimed something in the patent; and if you would like to talk about it, I'll be happy to. It's — it has to be clear. It has to be unambiguous. And what they've cited as the reasons for us disclaiming "on the fly" are not either one of those.

You've already looked at Figures 1 and 3. There are a lot of other differences in Figures 1 and 3 that bring out the difference between "on the fly" and "not on the fly." Figure 1, when you get to step 200, it says ask for a single image. Figure 3 when you get to step 200, it says ask for

all images in the study. And this comes to the essence of being able to use an imaging standard for diagnosis. You have to be able to get all of the images and deal with them, and you don't want to have to go back, like in Figure 1, and go ask for them one at a time, which is what the prior art would give you. In our system, as well as in Merge's, when you click on that pointer that gets you to the study, you get all the images in the study. And that's the essence of what was being taught in the comparison between the prior art and the -- when it was talking about "on the fly."

Also, an essential element to remember when you're talking about the discussion about "on the fly," it was in column 3. That's in the background of the invention.

That's not in -- where he's talking about "This is what my invention is about." He's just talking about the pros and cons of the prior art.

I would want to correct -- Mr. Truax said that in response to Wood causing a rejection is when we made the statements about Wood. That's incorrect. The statements about Wood are in the specification where it's just discussing the background. So that was not in response to any rejection. What we've got is a discussion of Wood and a discussion of Java saying some of the those things can create delays, but that's not a disclaimer. And the case law is pretty clear that you can discuss the issues or

problems with the prior art, particularly if it's --

THE COURT: A big part of what I understood he was attempting to say is the patent office was basically telling you that Wood already addressed the issue and you had to distinguish what you had from Wood.

MR. LESTER: Well, again, the patent office later on did make a rejection based on Wood and the arguments that were made in the prosecution history had nothing to do with "on the fly." The arguments that distinguished Wood dealt with other aspects of Wood. Now, that's not in the record in front of you right now. We would certainly have to deal with that in claim construction, but the snippet that he showed you that talked about Wood and said that Wood does "on the fly" processing also talked about a lot of other distinguishing factors with respect to Wood and said what Wood -- it just described that these are some of the problems of the prior art. It didn't distinguish it and it certainly didn't disclaim it as a solution.

When you look at the disclosure in the patent that describes our invention, it doesn't say we don't do it "on the fly." It doesn't ever say you have to have the processing all done before the user requests the image. It leaves it open. Now, in the preferred embodiment, which is illustrated in that Figure 3, it could be that the entire set of images is converted and ready and available to be

looked at. In fact, it describes that later on in the 2 patent as part of the preferred embodiment where you can set 3 up an image storage system and an archiving system, but it 4 doesn't limit it to that. It says: Here is our preferred 5 embodiment. But it certainly does -- and in fact --6 THE COURT: How do you create any boundaries on 7 what the patent is, though, if you can sort of move and 8 shift as you go? 9 MR. LESTER: Well, the boundary comes in the 10 The boundary -- the claims lay out what are the claims. 11 metes and bounds of what we claim, and what we say is it 12 just has to be converted before it's transmitted. That's 13 what the claim says. That's what -- the patent office 14 agreed with that. That's what they allowed us to claim. We 15 didn't -- if we had been limiting it to before it's 16 requested, we could have easily said that. We could have 17 put that in Figure 3. Figure 3 doesn't put any --18 THE COURT: Are you locked in at this point, 19 Mr. Lester, in terms of DICOM being a non-web-accessible 20 browser or non-web-accessible device? 21 MR. LESTER: Yes, sir. 22 THE COURT: Are you locked in on that in terms of 23 your claim? 24 MR. LESTER: Yes, sir, I believe under the way the 25 Court needs to construe the patent, if the patent defines it as non-web compatible, it's non-web compatible.

THE COURT: All right, sir.

MR. LESTER: Now, in terms of distinguishing
Feingold, let's move to that invalidity argument that he
made. He says it doesn't mean much; that it only gives you
a series at a time or it only gives you a certain set of
images. That again goes back to the requirement for
diagnosis. You have to be able to navigate all the series
in the imaging study in order to find the right image that's
going to give you the good diagnosis. Feingold was never
designed to be diagnostic. He reduced the quality of the
images. He didn't give you the ability to navigate the
study, all of which are essential elements of our claim
so --

THE COURT: But is it true, as I made response to Mr. Truax, that Feingold says there's talk of this, but it's just not feasible to do the kind of thing, and that was your inroad to say: Well, let's do that. Let's show it can be done?

MR. LESTER: I'm not sure Feingold ever suggested that it could be used for diagnostic purposes. He's basically laid out as his reason to go out and try to distribute reports to referring physicians.

THE COURT: But wasn't it your statement you basically looked to Feingold to the extent it said, no, this

can't be done and you would said say, yes, let's do it?

MR. LESTER: I'm not sure that was Feingold I was referring to. The -
THE COURT: Well, whichever one it was.

MR. LESTER: There was a reference that -- there were several references that taught against this. I think it was DeJarnete that said you can't do this. That's right. And then we went out and figured out how to do it.

DeJarnete, who was slightly after our invention date, suggested you could do it with just web browser-compatible images. Well, he said, "Here's a system that would use web-compatible images." And then he said, "But it's only good for sending the reports back to referring physicians. It can't be used for diagnosis." And again, that's a positive factor, we believe, in terms of proving the validity of our patent.

When you get to the question of irreparable injury,

Mr. Truax was asking, you know, what's the next -- why is

this product going to be -- have an impact on sales of other

products, of the iConnect suite. I mean, their own

marketing literature says that three components are critical

to the success of an enterprise imaging strategy. You have

to have your neutral archive. You need your DICOM gateway

and you have to have a universal viewer. This is the

critical element that is allowing people to get out there

and sell the vendor neutral archive solutions that hospitals want these days. The zero-download DICOM viewer, as Merge points out in their own literature, is a critical piece of this whole product.

Now, we're not trying to get them to stop selling their vendor neutral archives. We're not trying to get them to stop selling their DICOM gateways. We just want them to stop selling the zero-footprint viewer. They've got other viewers. We've got evidence of that. They could put those on top of their vendor neutral archive and stop infringing what's covered by our patent.

I'm not sure -- are there any other elements that I can address for you, Your Honor?

THE COURT: Only if you wanted to address what he raised. That's why I give you this opportunity.

MR. LESTER: Okay. Let me take a quick look. (Pause in the proceedings.)

MR. LESTER: I just want to reemphasize when we're talking -- again, talking about Feingold and the loss of resolution, they showed you those pictures there of the broken bone. Within our file history, we clearly pointed out that the -- and it's in the document that I referred you to -- that "lossless" is what's being described as a diagnostic-quality image. That means not going down to those loss of resolution. Again, when we get into claim

construction, we've got a whole plethora of other arguments that we'll bring up on that, but I'm just limiting it to what we have got in the record. For it to be a diagnostic-quality image, it has to maintain the same resolution as the original image. And that wipes out the Feingold reference as well.

Again, Your Honor, the final point that he brought up as being critical was our delay in bringing this motion.

The -- Heart IT is a small company. I was working with them. They weren't doing nothing for those months after the patent issued. They were working with me to try to get this case ready to go against a much larger company. There is a -- there was not a lack of inactivity. There was a lack of funding to enable them to be able to put on a patent infringement case against a much larger competitor.

The meaning -- and originally there was no intent to file a preliminary injunction, but when the "meaningful use" guidelines came out -- they weren't finalized until August. They didn't actually issue until October of last year. When those guidelines came out and said that image-enabling the health records was going to be one of the reasons that -- one of the factors that was going to affect whether you're achieving "meaningful use," then the urgency went up another step. A lot of hospitals, a lot of systems are in the process of evaluating how they're going to meet that and

1	zero-footprint viewers are a one of the best ways to do
2	it and we feel like we should be the offerer of that the
3	primary offerer of that and we should not have to deal with
4	the infringement from these larger competitors.
5	THE COURT: All right, sir. Thank you.
6	MR. LESTER: Thank you, Your Honor.
7	THE COURT: Counsel, the Court will consider the
8	arguments that you made and the briefs that are relevant for
9	this proceeding and make a decision and notify you of that
10	decision. Thank you very much.
11	We'll be in recess until further notice.
12	(Proceedings concluded at 12:25 p.m.)
13	
14	<u>CERTIFICATE</u>
15	I, LORI RUSSELL, RMR, CRR, United States District Court Reporter for the Middle District of North Carolina, DO HEREBY CERTIFY:
16	
17	That the foregoing is a true and correct transcript of
18	the proceedings had in the within-entitled action; that I reported the same in stenotype to the best of my ability and
19	thereafter reduced same to typewriting through the use of Computer-Aided Transcription.
20	
21	Lori Rumall
22	Lori Russell, RMR, CRR
23	Official Court Reporter

24

25